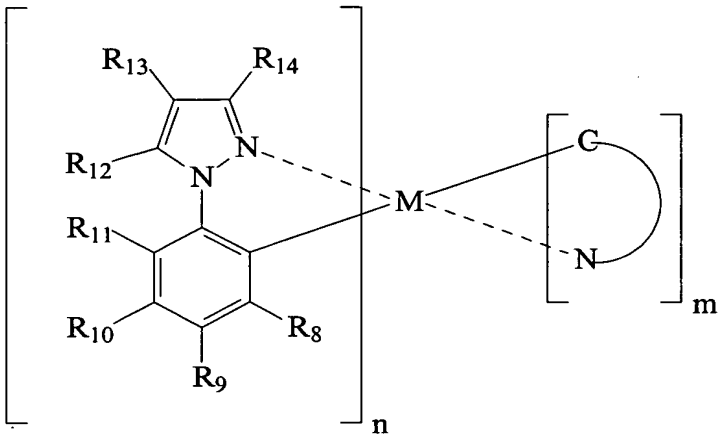
Abstract

An organic light emitting device is provided, having an anode, a cathode, and an emissive layer disposed between the anode and the cathode. The emissive layer may include the following compound:



wherein

M is a metal having an atomic weight greater than 40;

(C-N) is a substituted or unsubstituted cyclometallated ligand, and (C-N) is different from at least one other ligand attached to the metal;

each R is independently selected from hydrogen, alkyl, alkenyl, alkynyl, alkylaryl, CN, CF_3, CO_2R, C(O)R, NR_2, NO_2, OR, halo, aryl, heteroaryl, substituted aryl, substituted heteroaryl, or a heterocyclic group.

The emissive layer may also include a compound having a metal bonded to at least two ligands, in which one ligand has a triplet energy corresponding to a wavelength that is at least 80 nm greater than the wavelength corresponding to the triplet energy of other ligands. Each ligand may be organometallic.